

# **Green-e Certification of Tradable Renewable Electricity Certificates**

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## ***I. Introduction***

The purpose of this paper is to provide staff recommendations for the treatment and certification of Tradable Renewable Energy Certificate (T-REC) products by the Green-e Program at Center for Resource Solutions (CRS). Because of the limited scope of this paper, we do not attempt to address all of the issues potentially surrounding the development of a T-REC market. Rather, this paper only addresses the narrow range of issues relevant to certifying T-REC-based products by the Green-e Program. Our goal is to develop a set of meaningful environmental and consumer protection criteria that can be applied to T-RECs products sold nationally in restructured as well as regulated markets.

Much of the conceptual basis for this paper was taken from a larger collaborative white paper produced by the Center for Resource Solutions. The method used for developing the white paper was to bring together a range of experts, including emission traders, environmental advocates, consumer representatives, and renewable energy suppliers into a forum to discuss T-REC markets more broadly and provide recommendations on market development issues. The larger paper can be found at [www.resource-solutions.org/CRSprograms/T-RECS.html](http://www.resource-solutions.org/CRSprograms/T-RECS.html). Many of the ideas presented in the CRS white paper were further refined through a series of discussions by Green-e Regional Advisory Committees in New England, Mid Atlantic, Ohio, and Texas, by marketers in California and the Northeast, and through a national T-RECs stakeholder Advisory Committee. Based on the feedback received at these meetings and the practical realities of administering the Green-e Program, CRS staff has put together a series of recommendations for certifying T-REC-based products. These proposed recommendations contained in this paper will provide a starting point for discussion on the development of final recommendations that will be presented to Green-e's governing Board and the affiliated Green Pricing Accreditation Board. For more information about the Green-e Program or the Center for Resource Solutions, please visit [www.resource-solutions.org](http://www.resource-solutions.org).

## ***II. Should Green-e Certify T-REC-Based Products?***

The first question that needs to be addressed is, "Should Green-e certify T-REC products?" Green-e has established itself as a national renewable power certification program. By setting product standards, Green-e has helped to set a floor for minimum product content, consumer disclosure, and verification of renewable products, and has helped to provide consumer confidence and community support for renewables. The market for T-REC based products is already happening. There are at least five companies presently selling T-RECs or T-REC based products to businesses and retail customers on the Internet and through direct sales. The opportunity for fraud and consumer deception around T-REC products is high and there is very little regulatory oversight. Green-e can help order the market by providing minimum standards for T-REC based products that ensure meaningful consumer disclosure, annual verification and environmental improvement. In addition, by setting some standards around T-REC products, Green-e helps to level the playing field between those marketers wishing to sell renewable electricity and those selling only T-RECs.

## ***III. Process For Developing Certification Standards***

The Green-e Certification and Green Pricing Accreditation Programs convened a national stakeholder advisory committee to develop minimum product certification recommendations for T-REC-based products. This committee met three times and had several sub-committees that worked on specific issues. Representatives from each of the Green-e and Green Pricing Accreditation Regional Advisory Committees were invited to participate as well as other stakeholders that may not be participating in these

Programs, but who have an interest in the development of certification standards for T-REC-based products. All meetings were open to interested parties. Meeting minutes, announcements, and other documents were sent to our T-RECs email list, which now contains 119 members. The recommendations below were approved by T-RECs Advisory Committee by a majority vote process, except where otherwise noted. In some cases, based on feedback from regional stakeholder Advisory Committees, the recommendations from the T-RECs National Advisory Committee are not the recommendations that will be provided to the Board. Again, these instances are noted throughout.

#### ***IV. What Are Tradable Renewable Certificates (T-REC)?***

A T-REC is a new way to purchase renewable electric generation that divides the generation into two separate products, “electricity” and “renewable energy attributes.” For the purposes of this paper, a T-REC represents the bundle of renewable attributes associated with a single unit (MWh or kWh) of renewable generation. The renewable attributes and the commodity electricity may be bought and sold separately, or combined at the point of sale by a power marketer. This paper uses the term “unbundling” to discuss the financial and contractual separation of T-RECs from the commodity electricity. In addition, the T-REC itself can be subdivided into separable attributes, for example air emission values such as NOx benefits, SO2 benefits, carbon benefits etc., which might be sold into local or global emissions trading markets. There also may be other social or economic attributes of value in a T-REC that have yet to be identified or for which there are not currently markets but may be in the future. The separation of one or more “green” attribute from a T-REC is termed “disaggregation.” A fully aggregated T-REC is one that contains all of the renewable attributes intact.

#### ***V. Understanding the Differences Between T-RECs and Renewable Electricity***

There are several issues that make T-REC-based products different from standard renewable electricity products. First, T-RECs may be combined at the point of sale with system electricity to create a T-REC-based electricity product or T-RECs may be sold alone. When purchasing a T-REC, it is possible that the generator may be located within or significantly beyond the consumer’s local electricity grid. T-RECs have no inherent geographic boundaries, thus, the use of T-RECs makes it feasible to support renewable power located at greater distances than is available from traditional electricity suppliers. In such circumstances, the renewable energy and the financial support for renewable energy are the same as with regular renewable power sales, except that the renewable generating facility that is supported may be in a different power pool, across the country, or even outside the country.

Consequently, the specific local environmental impacts of an individual consumer’s purchase may also change depending on whether T-RECs are used or not. Environmental improvement comes when a consumer *stops* buying, or buys less, electricity produced in ways that hurt the environment. Therefore, it is the location of the generating plant that you *stop* buying from that helps improve the environment. As with renewable electricity sold today, the environmental benefit realized varies by day and hour as well as location. However, with renewable electricity, consumers know with reasonable certainty that the potential benefit is occurring in their region. With T-RECs, on the other hand, the potential benefit could occur anywhere in the world.

Other issues, such as double counting, can be a problem for both T-RECs and renewable energy in general, however, the opportunity for double counting is vastly increased with T-RECs unless verification is closely monitored. Because of a current lack of institutional controls and the fact that there is not a physical commodity that is delivered, T-REC transactions are ripe for fraud. Furthermore, existing verification methodologies and tracking systems may not be adequate to handle T-REC transactions, particularly when attributes are disaggregated from the T-REC. As a result, the development of a consistent system for registering and verifying T-RECs could serve both the electricity and the T-REC

market. Finally, legal issues related to property rights are unique to T-RECs because this is a completely new type of product.

## ***VI. Consumer Acceptance***

Consumer protection is the cornerstone of the Green-e Program. It is CRS's belief that Green-e can play an important role in consumer understanding of T-REC products and can help with consumer protection aspects of a T-REC market. From CRS's perspective, the success of any effort to expand the demand for renewable electric generation through the use of T-RECs requires consumer understanding of the T-REC product. The consumer must have access to sufficient information to understand what they are paying for and confidence that buying the T-REC product satisfies their needs (e.g. local environmental benefit, financial support for renewables, etc.). Adequate disclosure and independent tracking and verification are therefore imperative to Green-e certification of T-REC-based products. In other cases, where disclosure and verification are insufficient remedies, restrictions on the types of allowable T-REC transactions for various customer classes are recommended.

In addition, multiple state, regional, and program specific rules establish disclosure<sup>1</sup> and/or other consumer protection standards as well as many different consumer education programs, including private marketing efforts. As the T-REC market moves forward it will be important for Green-e's certification to work in concert with the requirements of state disclosure rules and tracking systems and, in the absence of any state oversight, to ensure that double counting is not occurring.

## ***VII. Green-e's Current Policy on T-RECs***

Where consistent with state disclosure regulations, the Green-e and Green Pricing programs currently allow very limited use of T-RECs in certified products. Marketers may use T-RECs under two circumstances:

- (1) If the renewable generator from which the T-REC originated is located in the same power pool as the customer, marketers may purchase T-RECs and combine them at the point of sale with system power and sell the combined product as renewable electricity;
- (2) If the renewable generator from which the T-REC originated is located in a different power pool than the customer, the renewable generator must deliver a commensurate amount of electricity into the power pool serving the customer.

The green power marketer may then purchase the T-RECs from the renewable generator and may combine that with generic electricity, either from the renewable generator or from the system operator. It is important to note that once the generator has sold off the T-REC or "green-ness" the commodity electricity is no longer considered by Green-e to be "renewable," rather it is viewed as generic or "null electricity" for the purposes of Green-e certification.

## ***VIII. Interaction of T-REC Products with Green-e Electricity Product Standards***

CRS uses a multi-stakeholder process when setting regional Green-e and Green Pricing Accreditation standards. CRS recognizes the importance of considering local environmental concerns and regional renewable resource availability. Therefore, when setting standards for national T-REC products, Green-e strives to uphold the current Board-approved recommendations of the regional stakeholder groups. Where regional standards are more stringent than the national default standards, the regional standards will generally apply.

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<sup>1</sup>For the purpose of this discussion, "disclosure" refers to information that is required or recommended to be 'disclosed' in T-REC marketing and contract materials. Information that should be made accessible to interested consumers through a web site, database or similar means will be referred to as 'public information.'

**Table 1: Summary of Recommendations for T-REC-only Products**

<b>Criterion</b>	<b>Product Standards</b>
<b>Size/Amount</b>	At least 150 kwh/month blocks, or at least blocks in a minimum size of 25% of a customer's monthly usage. A supplier may sell blocks larger than the minimum size.
<b>New Renewables</b>	Only new renewables are eligible to contribute to the minimum size requirement. The term "new" is defined to include any eligible renewable facilities beginning operation after January 1, 1999. Local Green-e or Green Pricing definitions of "new" will take precedence to the default definition, where applicable.
<b>National Definition of Eligible Renewables</b>	The following national definition will apply: solar electric, wind, geothermal, LIHI-certified hydro, and biomass generated from the following fuels: clean urban waste wood, bioenergy crops, animal waste and other organic waste, digester gas and landfill gas. Any generator that is not considered an eligible renewable under their region's Green-e/Green Pricing definitions for electricity is also not eligible under the T-RECs.
<b>Emissions Requirements for Biomass Portion</b>	All biomass must meet the following national emissions limits for NOx: 2.9 lbs./MWh in 2000, 2001, 2002; 2.63 lbs./MWh in 2003, 2004, 2005; and 2.25 lbs./MWh in 2006, 2007, 2008.
<b>International T-RECs</b>	International T-RECs are not allowed except from Canada and Mexico. T-RECs from Canada and Mexico will be acceptable under 2 circumstances only: (1) If a US-based GIS and/or T-REC tracking system recognizes the international T-RECs and the Green-e Board approves of the system. (2) If the internationally generated T-RECs are recognized by an international GIS system and the Green-e Board approves of the system.  Burden of proof is placed on T-RECs suppliers to prove to CRS that the verification system is credible and meets all of the requirements for T-RECs certification.
<b>Use of Existing Renewables</b>	Only eligible new renewables may contribute to the certified T-RECs product.
<b>Disaggregated T-RECs</b>	Fully aggregated T-RECs only, to the extent possible based on current law
<b>RPS and Utility Renewables</b>	No RPS or mandated renewables; disclosure standards for utility resources. See discussion below for details on what is and is not allowed.
<b>Non-Renewable Requirement</b>	Only T-RECs blocks are certifiable, therefore, there is no non-renewable portion of the product
<b>Customer-Sited facilities</b>	Any on-grid customer sited facilities that meet the resource definitions are eligible. Customer sited of-grid renewables are not eligible.
<b>Disclosure Standards</b>	
<b>Fuel Source Disclosure</b>	Proposed T-REC default label based on Green-e/Green Pricing Accreditation default label. Default label sent out in all prospective marketing materials, and annually to existing customers (historical disclosure). If the product is marketed over the internet, the prospective customer must click through the label before buying.
<b>Geographic Disclosure</b>	Geographic location of generator(s) added to default Fuel Source label

Criterion	Product Standards
<b>Use of Tags Disclosure</b>	Marketer must include Green-e disclosure language or equivalent language of their own design, provided it has been pre-approved by CRS. This language will explain what T-RECs are to ensure that customers do not think they are buying renewable <u>electricity</u> .
<b>Disclosure for Customer-Sited Renewables</b>	Generator cannot claim, “we’re renewable powered” if selling the T-RECs. They can claim, “we’re hosting”. This relates to legal representation only. CRS will provide guidelines on how to disclose claims related to customer-sited renewable energy sources. Homeowner cannot say their home is renewable powered, but CRS recognizes that monitoring such claims is not realistic.
<b>Other Issues</b>	
<b>Timing of Generation</b>	Must be generated and sold within the calendar year with one exception- Green-e will allow a three month true-up period into the next year consistent with the true-up for electricity products.
<b>Banking</b>	No banking forward or backward allowed, except within the calendar year plus 3 month true-up.
<b>SO2 Claims (and other cap-and-trade pollutants)</b>	It is recommended that suppliers refrain from making claims about SO2 benefits unless the supplier is retiring SO2 offsets or otherwise can substantiate their claims. This recommendation also applies for any pollutant that is capped based on an allowance cap and trade program for which full aggregation is not possible.
<b>One-Time Purchases</b>	One-time purchases must meet all of the above T-RECs product standards with a couple of exceptions. Product content disclosure is required at time of purchase and no historic disclosure is required. The Secondary Use standard for events (conferences etc) claiming to be green powered is that the customer must match at least 25% of their expected event electricity usage with qualified T-RECs. CRS will develop standard guidelines and forms for estimating event electricity usage. To the extent the secondary use guidelines are modified at a later date, this level would stay consistent with those guidelines
<b>Secondary Use Guidelines</b>	Companies purchasing certified T-RECs are eligible for use of the Green-e logo if they are purchasing enough Green-e certified blocks to satisfy 25% of their load on a per meter basis.

## ***IX. Discussion of Recommendations for T-REC-only Products***

### **Product Requirements**

#### **A. Size/Amount**

##### **▪ Staff Recommendation**

T-REC products may be sold either as discrete fixed-size blocks or based on a percentage of a customer's monthly electricity use. Energy blocks offered to customers within the context of the Green-e Program must include at least 150 kWh of new renewable T-RECs per month. T-REC-only blocks sold in quantities based on a percentage of the customer's use are also eligible for certification if they match at least 25% of the customer's monthly usage on a per meter basis. The minimum required use of new renewables might grow over time, subject to the recommendations of stakeholders and the approval of the governing Board. Kilowatt-hour size is based on energy delivered, not capacity. A supplier may sell blocks larger than the minimum size.

- **Discussion**

The intent of the 150 kWh per month block size and 25% of usage size is to ensure that each customer receives a significant quantity of renewables without creating a standard that will price residential customers out of the market. It is the intent of the criteria that the minimum amount of new renewable energy supply required for block and percent of use products be roughly equal. The 150 kWh amount is slightly below 25% of the average American residential consumer's monthly usage, but we anticipate that a significant number of consumers will purchase more than one block. All currently accredited green pricing programs offer products that meet this requirement. This recommendation is consistent with Green-e minimum standards with the exception of Texas. In Texas, the minimum block size is 200 kWh/month and is for commercial customers only.

## **B. New Renewables**

- **Staff Recommendation**

When setting and enforcing minimum standards for T-REC-based products, CRS will set criteria and verification protocols only for new renewables. Existing renewables may not be used to meet the minimum renewable content requirement, and may not be used if the product size is larger than the minimum requirements. All CRS certified products must meet certain minimum standards for the supply of new renewable energy (kWh). The term "new" is defined to include any eligible renewable facilities beginning operation after January 1, 1999. This is a default definition. If a state or region has developed a different new renewable start date for Green-e/Green Pricing Accredited electricity products, that standard will apply for T-RECs as well. New hydropower facilities qualify as new provided that they have been certified by the Low Impact Hydropower Institute and meet the new requirement.

- **Discussion**

The intent of the CRS certification programs is to increase the amount of renewable energy supply, thereby improving the environmental performance of the electricity sector. This "new renewables" requirement will help foster the development of new renewable capacity, set a high bar for biomass emissions (only new permitted facilities), and reduce the risk of double-counting for rate-based renewables in some states. The definition of new was based on definitions created by the various regional stakeholder groups. CRS will be developing or facilitating the development of a registry of qualified facilities for certified T-REC products. The registry criteria will ensure that in regions with more stringent stakeholder definitions of "new", the regional definition will supersede the national default definition.

## **C. Default Definition of Eligible Renewables**

- **Staff Recommendation**

Staff recommends that Green-e use a highest common denominator approach to defining eligible renewables. This would include solar electric, wind, geothermal, Low Impact Hydropower Institute (LIHI)-certified hydro, and biomass generated from the following fuels: clean urban waste wood, bioenergy crops, animal waste and other organic waste, digester gas and landfill gas. Any generator that is not considered an eligible renewable under their region's Green-e/Green pricing definitions for electricity is also not eligible under the T-RECs. Therefore, no biomass from Colorado is allowed and no biomass from TVA's territory except landfill gas is allowed. No herbaceous agricultural waste from the Mid Atlantic may be use as a fuel in Mid-Atlantic biomass facilities.

- **Discussion**

The T-REC Advisory Committee recommended that Green-e establish a national definition and not to allow any regional variations. However, when we tested this approach in the Green-e regions, we got strong feedback that groups were not comfortable having a T-RECs marketer selling certified T-RECs from facilities that were not eligible to be sold as certified renewable electricity. Staff then proposed to have a generator-based sourcing standard whereby generators would have to meet their local regional definition of the Green-e default, but could sell their T-RECs in any market. This also was not acceptable because regional stakeholders felt that (1) it was not clear for the consumer what types of eligible resources are allowed under Green-e certification (e.g. TVA biomass excluded, but PA biomass allowed) and (2) effectively gave marketers the ability to sell a type of power into a market that might not meet the regional definition of eligible (e.g. you could sell forestry-derived biomass generated in New England into the PA market - the generator would meet the new England definition for eligibility and therefore would be able to sell that power anywhere.). The resulting recommendation is a combination of both ideas. We took the common elements from the Green-e regions so that consumers can know what is in the product. However, we added a provision to exclude anything from any current or future Green-e or Green Pricing regions that is ineligible. We also decided not to exclude biomass entirely because we felt that it would unfairly penalize biomass producers from states or regions where local stakeholder endorsed biomass generation.

#### **D. Emissions or Fuel Source Requirements for Biomass Portion**

- **Staff Recommendation**

Staff recommends that all biomass must meet the following national NOx emissions standards: 2.9 lbs./MWh in 2000, 2001, 2002; 2.63 lbs./MWh in 2003, 2004, 2005; and 2.25 lbs./MWh in 2006, 2007, 2008. In the event that states or regions adopt more stringent standards, those standards will apply to biomass generators in those states and regions only.

- **Discussion**

The T-RECs Advisory Committee recommended that there not be any biomass emissions standards. Staff feels that this would undermine regional efforts to exclude biomass facilities that did not meet minimum standards. Because biomass has been such a controversial subject in some Green-e and Green Pricing regions, staff feel that it would be best to start with a highest common denominator standard and work to expand this definition as regional biomass standards develop.

#### **E. International T-RECs**

- **Staff Recommendation**

Staff is recommending that international T-RECs should not be allowed at this time except under very limited circumstances. T-RECs from Canada and Mexico will be acceptable under two circumstances only:

- (1) If a US-based GIS and/or T-REC tracking system recognizes the international T-RECs and the CRS board approves of the system.
- (2) If the internationally generated T-RECs are recognized by an international GIS system and the CRS board approves of the system.

The burden of proof is placed on T-RECs suppliers to prove to CRS that the verification system is credible and meets all of the requirements for T-RECs certification.

- **Discussion**

The T-REC Advisory Committee has recommended that T-RECs from Canada and Mexico should be eligible because of the possibility of shared air quality benefits. However, it was also expressed that the lack of a compatible and verifiable tracking system in those two countries could open up the market for double selling. Without local advocates in those countries, it would be difficult for Green-e to monitor this. Therefore, the Committee recommends that T-RECs from Canada and Mexico be allowed only if an acceptable verification system is available in those countries. The Committee also recommended that all international T-RECs be eligible if they met our verification requirements. In Europe, there is a tracking and verification regime established and it is possible that European T-RECs would be available for sale immediately. However, staff feels that Green-e should see how the domestic T-RECs market develops before we allow T-RECs from non-contiguous international locations.

## **F. Use of Existing Renewables**

- **Staff Recommendation**

Only eligible new renewables may contribute to the certified T-RECs product.

- **Discussion**

There are several reasons why Staff believes that existing renewables should not be included in Green-e T-RECs certification at this time. As a practical matter, it would be extremely difficult for Green-e to verify that existing renewable attributes are not being double sold. Many existing renewables are being paid for by rate-based customers, and therefore should not be resold into a T-RECs market. Green-e has developed some criteria to prevent this generally (See Section H below), but it will be more complicated to determine if an existing facility meets these criteria, particularly with regards to cost-recovery and regulatory mandate. Second, there are sufficient new renewables developed or under development to support the emerging T-REC market. Staff feels that the T-REC market is most beneficial in helping provide a market and revenue stream for new facilities, instead of directing a consumer's premium payment to existing generators that already have their costs recovered under PURPA contracts. Third, having existing T-RECs compete with new T-RECs could create consumer confusion if the consumer does not understand the value of new renewables or the difference between new and existing renewables.

## **G. Disaggregated T-RECs**

- **Staff Recommendation**

The separation of one or more "green" attribute from a T-REC is termed "disaggregation." A fully aggregated T-REC is one that contains all of the renewable attributes intact. Only fully aggregated T-RECs will be eligible for certification, except for those pollutants covered under cap-and-trade programs for which full aggregation is not feasible (e.g., SO<sub>2</sub> where allowances are not provided directly to the renewable generator).

- **Discussion**

If one can assume that the green attributes in T-RECs are the primary reason that green power customers are willing to pay a premium for the power, then when one or more green attribute is peeled off of a T-REC, the consumer's incentive for buying the green power may disappear or be diminished. The risk of customer confusion, allegations of fraud, and the potential for double counting is high enough to recommend that disaggregated T-RECs products should not be mass marketed or sold. Also, the risk to the credibility of the nascent green power market is much higher than the market benefits of the disaggregation of T-RECs at this time. Treatment of SO<sub>2</sub> and other pollutants covered by similar cap-and-trade programs is described below.



CRS staff believe that Green-e is presently capable of verifying fully aggregated T-REC-based products with the same level of assurance as it verifies renewable electricity products today; that is, through a contract-path verification system that relies on an annual process audit and sworn attestations. However, this system is not well equipped to verify disaggregated T-REC products. To date, there is no national tracking and verification entity, although CRS is seeking funding to develop a national registry and verification and tracking system to address this need comprehensively.

## **H. Mandated Renewables, Utility Owned or Contracted Renewables, and Double Counting Restrictions**

### **▪ Staff Recommendation**

T-RECs are eligible as long as ALL of the following conditions are met:

- (1) New Renewables: Only T-RECs created by "new" renewable generation<sup>2</sup> may be used.
- (2) Mandated Renewables: T-RECs, or the attributes of the T-RECs or the electricity from which T-RECs are derived that are (a) being used simultaneously to meet a local, state, or federal mandate or other legal requirement, or (b) derived from a renewable facility that has been mandated by a local, state, or federal government agency or was required under any legal requirement may NOT be used. The sole exception to this is a facility that is generating T-RECs in excess of the government mandate or other legal contract, in which case that excess may be used.
- (3) Financial Incentives: Renewable facilities that obtain tax or financial incentive payments may sell their T-RECs, to the extent allowed by law, regulation, and contract language governing the tax or financial incentives program.
- (4) Double Counting: Eligible T-RECs can be claimed once and only once.<sup>3</sup> T-RECs (or the renewable or environmental attributes incorporated in that T-REC) that can be legitimately claimed by another party cannot be used. Legitimate claims may include, but are not limited to, a contract for the T-RECs or the renewable electricity, use of the renewable electricity from which the T-RECs were derived in calculating another company's product or portfolio resource mix for the purposes of marketing or disclosure, use of the T-REC to satisfy a government mandate, such as an RPS, and use of one or more attributes of the T-REC by another party.
- (5) Interaction with state laws: Green-e will only allow T-RECs to be used if this is allowable under state law without creating double counting. For example, in states that prohibit the unbundling of T-RECs from electricity, T-RECs from that state are not eligible for Green-e because there are potentially two entities that have a legitimate claim on the T-RECs. Similarly, if state disclosure laws require disclosure of renewable electricity even if a TREC has been stripped from the commodity electricity supply, then the TREC is not allowed under Green-e's certification program.

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<sup>2</sup> New renewable start date will be defined by Green-e/Green Pricing stakeholders. For states where there is no stakeholder group, the default new renewable start date will include any facilities on-line after Jan 1, 1999. Regional definitions trump the default national definition of "new."

<sup>3</sup> If the T-REC is being used in a Green-e certified product, then only the marketer selling the product can lay claim to the T-REC.

(6) Electric Utility Resources:

Generator	Intermediary	T-RECs Marketer to end use customer
1. Utility*		Utility*
2. IPP		Utility*
3. IPP		Marketer/Broker
4. Utility*		Marketer/Broker
5. IPP	Utility*	Marketer/Broker
6. IPP		IPP

\* We use the term utility to refer to any electric service provider that has captive rate-based customers. This includes but is not limited to IOUs, munis, co-ops, etc. It does not include standard offer and default service providers in states that have allowed retail choice.

In all cases, the notifications below must be provided and evidenced before the T-RECs are used in a Green-e certified T-REC product.

Case 1 and 2: The utility is rate-basing the electrons from the renewable generation and selling the T-RECs separately

Utility may sell their T-RECs, as long as they have:

- (a) Fully disclosed to any regulatory authority or governing board having jurisdiction over the allocation of costs from the facility that the facility owner(s) intend to separately sell the T-RECs associated with the electricity generated by the facility and will report the revenue associated with such sales to the regulatory authority; and
- (b) If applicable, fully disclosed to any regulatory authority or governing board having jurisdiction over the environmental attributes of the facility that the facility owner(s) intend to separately sell the T-RECs associated with the electricity generated by the facility and will refrain from making any express or implied environmental claims for the commodity electricity product, including but not limited to claims made pursuant to environmental labeling or disclosure requirements; and
- (c) Fully disclosed to Green-e Program or the verifying agent of Green-e any that they have successfully executed (a) and (b) above.

Case 3: The IPP is selling the commodity electricity supply to a utility and selling the T-RECs in a separate transaction to a marketer/ broker. If the commodity electricity is being supplied under a facility-specific (or specified) contract or PURPA contract, the marketer/broker may sell those T-RECs so long as the marketer/broker obtains a written declaration from the generating facility owner(s) stating that:

- a) The IPP(s) has fully disclosed to the utility purchasing the electrical energy from the generator that they intend to separately sell the T-RECs associated with the electricity generated by the facility and the utility does not have rights to make any express or implied environmental claims for the commodity electricity product, including but not limited to claims made pursuant to environmental labeling or disclosure requirements; and

- b) The utility has fully disclosed to any regulatory authority or governing board having jurisdiction over the allocation of costs from the facility that the IPP intends to separately sell the T-RECs associated with the electricity generated by the facility. In this case the marketer/broker must demonstrate to CRS that they have made a legitimate effort to ensure that the utility makes the requisite disclosures; and
- c) If applicable, the utility has fully disclosed to any regulatory authority or governing board having jurisdiction over the environmental attributes of the facility that the IPP intends to separately sell the T-RECs associated with the electricity generated by the facility and the utility will refrain from making any express or implied environmental claims for the commodity electricity product, including but not limited to claims made pursuant to environmental labeling or disclosure requirements. In this case the marketer/broker must demonstrate to CRS that they have made a legitimate effort to ensure that the utility make the requisite disclosures; and
- d) In addition, the marketer/broker must fully disclose to the Green-e Program or the verifying agent of Green-e that they have successfully executed (a), (b) and (c) above.

(Note: system power contracts with no specific facility identification do not trigger the required notification. Also, once the NE-GIS system is in place – or similar system in other regions – no “electricity only” contracts would trigger the disclosure requirement.)

Case 4 & 5: The utility owns/operates the renewable generation facility and they are selling the T-RECs to a marketer/broker.

The marketer/broker may sell those T-RECs so long as the marketer/broker obtains a written declaration from the utility stating that:

- (a) The utility has fully disclosed to any regulatory authority or governing board having jurisdiction over the allocation of costs from the facility that the utility intends to separately sell the T-RECs associated with the electricity generated by the facility and will report the revenue associated with such sales to the regulatory authority; and
- (b) If applicable the utility has fully disclosed to any regulatory authority or governing board having jurisdiction over the environmental attributes of the facility that they intend to separately sell the T-RECs associated with the electricity generated by the facility and will refrain from making any express or implied environmental claims for the commodity electricity product, including but not limited to claims made pursuant to environmental labeling or disclosure requirements; and
- (c) In addition, the marketer/broker must fully disclose to Green-e Program or the verifying agent of Green-e that they have successfully executed (a) and (b) above.

Case 6. In this case, the IPP is selling the electricity to the utility and the T-RECs directly to end use customers. If the commodity electricity is being supplied under a facility-specific (or specified) contract or PURPA contract, the IPP may sell the T-RECs from that facility so long as they provide and/or obtain written declarations as follows:

- a) The IPP has fully disclosed to the utility purchasing the electrical energy from the generator that they intend to separately sell the T-RECs associated with the electricity generated by the facility and the utility does not have rights to make any express or implied environmental claims for the commodity electricity product, including but not limited to claims made pursuant to environmental labeling or disclosure requirements; and
- b) The utility has fully disclosed to any regulatory authority or governing board having jurisdiction over the allocation of costs from the facility that the IPP intends to separately sell the T-RECs associated with the electricity generated by the facility. In this case the IPP must demonstrate to CRS that they have made a legitimate effort to ensure that the utility make the requisite disclosures; and
- c) If applicable, the utility has fully disclosed to any regulatory authority or governing board having jurisdiction over the environmental attributes of the facility that the T-RECs are being sold separately. In this case the IPP must demonstrate to CRS that they have made a legitimate effort to ensure that the utility make the requisite disclosures; and
- d) In addition, the IPP must fully disclose to the Green-e Program or the verifying agent of Green-e that they have successfully executed (a), (b) and (c) above.

(Note: system power contracts with no specific facility identification do not trigger the required notification. Also, once the NE-GIS system is in place – or similar system in other regions – no “electricity only” contracts would trigger the disclosure requirement.)

▪ **Discussion**

The rules above are an attempt to prevent double-counting and double-selling and to ensure that the state regulatory authorities are adequately informed of T-RECs transactions. The T-RECs Advisory Committee felt that Green-e had a limited reach in this arena, and that ultimately the responsibility for ensuring that double-counting/double selling was not occurring rested with state regulatory authorities, with regards to utilities and default providers. For example, if the IPP appears to have contractual ownership of the T-RECs, but the utility makes claims about the electricity being purchased from the IPP, thereby creating a double-counting scenario. In this type of case, CRS will work with both the IPP and utility to try to work out agreement such that double-counting is not occurring. It is also recommended that Green-e set out a time limitation during which it will allow this type of double-counting to occur before the T-RECs from the IPP become ineligible. If the situation is not resolved within a reasonable amount of time, then Green-e reserves the right to revoke certification and contact the state Attorney General and Consumer Advocate.

It is also important to note that The T-REC Advisory Committee was split on whether Green-e should require these notifications or simply to recommend them. Staff is researching this issue with past Commissioners and welcomes comments.

## **I. Non-Renewable Requirement**

The existing Green-e standard restricts emissions and resource content for any non-renewable portion of the product. Because this is a T-REC product and not an electricity product, and because the supplier is not the customer’s electricity supplier, there should not be any non-renewable component to the product. Therefore this limitation is not applicable.

## J. Customer-Sited Renewables

Any on-grid customer-sited facilities that met the resource definitions are eligible. Customer-sited off-grid renewables are not eligible. The reasoning for this it would be too difficult for Green-e to verify the output from off-grid renewables.

## Disclosure Standards

### K. Fuel Source Disclosure

- **Staff Recommendation:** (see attached label)  
Staff recommend that the fuel source of the T-RECs be disclosed to consumers on all prospective marketing materials, on the website, and in any product specific written materials. In addition, a prospective and historic fuel source label must each be sent customers annually.
- **Discussion**  
This recommendation follows existing Green-e requirements generally with the exception the Green-e T-RECs requires suppliers to list out the percentages of specific renewables prospectively and the Green-e electricity label only requires to list out the total renewables prospectively.

### L. Geographic Disclosure

- **Staff Recommendation:** (see attached label)  
Staff recommends that the generation location be disclosed to consumers on the fuel source content label. The supplier can describe the geographic location in one of two ways (1) Region or, (2) state. The “For Comparison” statement must be tailored to the targeted geographic market, if the product is being sold in conjunction with a utility, or to a specific state or region. The historic disclosure must break down the geographic location by state and percentage. Finally, Green-e will allow marketers to develop their own disclosure label provided it is pre-approved by Green-e staff prior to being used.
- **Discussion**  
The disclosure of generation location is an important piece of information for consumers to receive both before purchasing the T-REC product and regularly thereafter. This is not only integral to the consumer’s understanding of the T-REC product, but may also be a factor in the consumer’s desire to continue supporting the product. The T-RECs Advisory Committee recommended three levels of disclosure, US, regional and state. However, when this was tested on Green-e Advisory Committees, the general reaction was that the US option was too vague and could be misleading. Staff feels that giving a regional option still provides enough flexibility for national marketers to combine T-RECs from many different facilities, yet still provides consumers with relevant information.

### M. Use of Tags Disclosure

- **Staff Recommendation:** (see Appendix 1)  
The attached disclosure label contains a tag disclosure in the label itself. In addition to this, suppliers must provide the attached Green-e “short language” (in Appendix 2) or the equivalent in all product specific marketing materials, on the web, and in customer subscription packets. If a supplier chooses to use different language, this must be pre-approved by CRS. In addition, suppliers must provide the Green-e “long language” (in Appendix 2) on their website for customers that want more information.

- **Discussion**

It was felt that Green-e should develop stock language that can be used, but also allow marketers some flexibility in crafting language to describe what a T-REC is. The goal of this is to ensure that consumers understand what they are buying.

## **N. Disclosure for Customer-Sited Facilities**

- **Staff Recommendation:**

A generator cannot claim, “we’re renewable powered” if they are selling all of the T-RECs as a Green-e certified product or to a Green-e certified marketer. Generators can claim, “we’re hosting”. This relates to legal representation only. If a host uses some of the TRECs themselves, they can make appropriately qualified use claims.

- **Discussion**

It was acknowledged that this will be nearly impossible to monitor, particularly if parties start aggregating solar T-RECs from small scale arrays. However, it was felt that it is still valuable to provide some recommendations to ensure that double counting is not occurring.

## **Other Issues**

### **O. Timing of Generation and Banking**

- **Staff Recommendation**

The T-REC must be generated within the calendar year it is being sold, plus a three-month grace period into the following year. For example: tags generated in 1999 could not be used to meet 2000 load, but tags generated during the first quarter of 2000 could be used to true up 1999 demand. Therefore T-RECs may not be banked for the purposes of selling in the future, or selling T-RECs generated in the past with the exception of those used to meet the annual true-up.

- **Discussion**

This recommendation is consistent with current Green-e/Green Pricing Accreditation requirements for the true-up period. Staff feels it is important to retain the timing of generation requirement for T-REC-only products to remain consistent and limit confusion

### **P. One-Time Purchases**

- **Staff Recommendation**

One-time purchases must meet all of the above T-RECs product standards with a couple of exceptions. Product content disclosure is required at time of purchase and no historic disclosure is required. The Secondary Use standard for events (conferences etc) claiming to be green powered is that the customer must match at least 25% of their expected event electricity usage with qualified T-RECs. CRS will develop standard guidelines and forms for estimating event electricity usage. To the extent the secondary use guidelines are modified at a later date, this level would stay consistent with those guidelines.

### **Q. SO<sub>2</sub> Claims (and other cap-and-trade pollutants)**

- **Staff Recommendation**

Staff recommends that green power providers not make explicit claims about SO<sub>2</sub> benefits for green power products or T-RECs sold to any consumer unless SO<sub>2</sub> allowances have been retired, or unless the supplier have evidence that SO<sub>2</sub> benefits have occurred. The same requirement would apply to any pollutant that, like SO<sub>2</sub>, is covered under a cap-and-trade allowance program in which renewable generators do not directly receive allowances.

- **Discussion**

Given the national cap on SO<sub>2</sub> emissions in the U.S., reductions in SO<sub>2</sub> emissions can, as a general rule, only be garnered by purchasing and retiring SO<sub>2</sub> emissions allowances (this is not strictly accurate as the cap is not always binding and does not cover all SO<sub>2</sub> sources). But, given the rules today, most renewable generators are not now allocated such emissions allowances. Accordingly, the impact of introducing renewable energy to a region may be to reduce the actual emissions of marginal fossil fuel plants, freeing up allowances to be sold to other polluters elsewhere. Consequently, most green power sales today (which do not directly retire SO<sub>2</sub> or other cap and trade allowances) may not be able to legitimately claim such emission benefits. (Longer-term SO<sub>2</sub> benefits may be argued to the degree that the existence of zero-emissions sources increases the prospect for more stringent SO<sub>2</sub> caps in the future). As long as renewable generators are not awarded allowances (or the SO<sub>2</sub> cap is tightened as more renewables are brought on line), it would appear that only by requiring that marketers or generators purchase and retire SO<sub>2</sub> allowances could broad SO<sub>2</sub> reduction claims be justified. The claim of SO<sub>2</sub> benefits of the green power purchase (absent the retirement of SO<sub>2</sub> allowances) may therefore be considered deceptive advertising. It is staff's recommendation that green power providers be prohibited from making explicit claims about SO<sub>2</sub> benefits for green power products or T-RECs sold to any consumer

#### **R. Secondary Use of the Green-e Logo**

- **Staff Recommendation**

Staff recommends that purchasers of certified T-REC product should be allowed to use the Green-e logo under the same provisions as purchasers of Green-e electricity products.

#### **X. Discussion of Recommendations for T-REC-based All-Requirements Electricity Products**

- **Staff Recommendation**

CRS Staff recommends that Green-e only certify T-REC-based electricity products where the T-REC comes from a generator that is located within geographic proximity of the customer. This policy is therefore effectively reiterating what Green-e allows today (See Section VII Above). Geographic proximity is defined as follows:

<b>For Customers Located in:</b>	<b>The T-REC must be generated in the following region or be attached to electricity imports into that region:</b>
California	WSCC
New England	New England ISO
New York	NY ISO
Mid Atlantic	PJM and PJM West excluding Penn Power territory
Texas	ERCOT or generated in any part of TX
Ohio	Great Lakes: MI, WI, IN, MN, IL, OH
Iowa	Iowa
Colorado	WSCC
TVA	TVA
All other states	Electric Reliability Region of the customer, or from the state in which the customer resides.

The Regional Advisory Committees will be given an option to modify the above regional boundaries through the stakeholder process.

Staff is recommending that T-RECs electricity products follow the same disclosure requirements as other Green-e certified electricity products.

- **Discussion**

This policy would not allow a marketer to sell T-RECs combined at point of sale where the T-REC was generated outside of the customer's reliability council or region unless the marketer also scheduled a commensurate amount of electricity to move into the customer's power pool. In the case where a marketer was supplying system power with tags generated outside of the customer's reliability council or region, Green-e would view this as two separate products, a T-REC-only product and a system power product. A marketer could get the T-REC portion of the product certified provided it meets all of the product standards. This policy also limits Green-e's ability to certify TRC-based electricity products to those regions where Green-e or the Green Pricing Accreditation Program have standards in place.

CRS believes that there is a difference between T-RECs generated in a consumer's state or power pool versus those generated across the country or outside of the country. The importance of the location of the generation vis-à-vis the consumer is based on the motivational factors of different consumers. Some consumers are willing to pay a premium for renewable power because they believe it helps their local or regional air quality. In this case the delivery of power into the customers power pool is the easiest way to ensure some level of regional environmental improvement. Since it is impossible to predict consumer preferences or assumptions, staff is recommending a conservative approach to this issue. Furthermore, the alternatives pose a risk of consumer deception because of the complex nature of T-RECs and the low level of consumer understanding about electricity in general.

Although it was conceded that this policy could limit the consumers in states bordering the arbitrary confines of the reliability council or defined region, using the reliability council or another approved region as the defining border is the easiest way to ensure consistency with state disclosure laws and consumer understanding. CRS believes that the average consumer, if presented with a product of generic electricity plus T-RECs combined at the point of sale, will assume that somehow the electricity from the TRC generator was delivered into the grid serving them. CRS also believes that no amount of disclosure will be able to adequately explain the T-REC concept to the average consumer when served with this type of electricity product. The disclosure of the generic power portion of the product should follow state guidelines; it is recommended that the disclosure for the T-REC portion of the product be the same as fully aggregated T-REC-only products described below.



## Appendix 1: T-RECs Disclosure Label

<b>RENEWABLE CERTIFICATE LABEL</b>		
<p>The purchase of renewable certificates supports renewable electricity production and may offset traditional electricity generation in the region where the renewable generator is located. This does not represent a sale of electricity to you.</p> <p>This product matches X% of your estimated electricity usage. The product will be made up of the following new renewable resources averaged annually. [use alternate language below for fixed size blocks and historic disclosure]</p>		
<b>New<sup>1</sup> Renewable Resources in</b> <b>[PRODUCT NAME]</b>		<b>Generation Location</b>
Biomass	<b>X %</b>	
Geothermal	<b>X %</b>	
Low Impact Hydro	<b>X %</b>	
Solar	<b>X %</b>	
Wind	<b>X %</b>	
<p><sup>1</sup> Includes renewable generators that first started operating after January 1, 1999 or as regionally defined.</p> <p><b>For comparison</b>, the current average mix of energy sources supplying the US includes: Coal (X%), Nuclear (X%), Oil (X%), Natural Gas (X%), Hydroelectric (X%), and Other (X%). (from USEPA E-GRID)</p> <p><b>For specific information about this product, contact [Company Name], [phone], [website].</b></p> <p><b>This product is verified by the Green-e Program. For more information call 888-63-GREEN or visit <a href="http://www.green-e.org">www.green-e.org</a></b></p>		

Alternate language for fixed size blocks: The product is sold in blocks of [150] kWh. The product will be made up of the following new renewable resources.

Historic disclosure:

(for fixed sized blocks) The following renewable certificates were purchased on your behalf in 2001.

(for percentage of use blocks) Renewable certificates matching X% of your electricity usage were purchased on your behalf in 2001. These were made up of the following resources:

Other Specifications:

1. This is a guidance format. Modifications can be done with pre-approval with CRS
2. The supplier will not list any renewable resources that are not in their product
3. The supplier can describe the geographic location in one of two ways (1) Region or, (2) state. If they describe the geographic location as US, they may not imply any local environmental benefits
4. The "For Comparison" statement must be tailored to the targeted geographic market, if the product is being sold in conjunction with a utility, or to a specific state or region.
5. The historic disclosure must break down the geographic location by state and percentage
6. There is no historic disclosure requirement for 1-time purchases. Suppliers must deliver exactly what they promise in the prospective disclosure.

## Appendix 2: Green-e “Short” and “Long” Language

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**Who receives it:** This is a mandatory disclosure requirement for all customers prior to subscription.

**Where displayed:** (1) web site (on the first page with product-specific information. Note: longer language may be substituted) (2) on any printed marketing materials, such as brochures, pamphlets etc. Not required on radio, video, or newspaper ad type media.

### **Proposed Short language:**

Your purchase of renewable certificates is supporting renewable electricity production in [name of states here]. This is not a sale of electricity to you. For every unit of renewable electricity generated, an equivalent amount of renewable certificates are produced. The purchase of renewable certificates may help offset conventional electricity generation in the region where the renewable generator is located. The purchase also helps build a market for renewable electricity and may have other local and global environmental benefits such as reducing global climate change and regional air pollution. For more information about renewable electricity certificates, please visit [green-e website here].

This language may be modified with pre-approval by CRS.

### **Proposed Long Language**

**Where displayed:** on the web site

### **Proposed language:**

When a renewable energy facility operates, it creates electricity that is delivered into a vast network of transmission wires, often referred to as “the grid.” The grid is segmented into regional power pools; in many cases these pools are not interconnected. To help facilitate the sale of renewable electricity nationally, a system was established that separates renewable electricity generation into two parts: the electricity or electrical energy produced by a renewable generator and the renewable “attributes” of that generation. The renewable attributes or “green” attributes are sold separately as renewable certificates. Only one certificate may be issued for each unit of renewable electricity produced.

This product is made up of renewable certificates. With the purchase of renewable certificates, you are buying the renewable attributes (i.e. environmental benefits) of a specific amount and type of renewable energy generation. You are not purchasing electricity. Your purchase does help offset conventional electricity generation in the region where the renewable generator is located. Your purchase also helps build a market for renewable electricity and may have other local or global environmental benefits such as reduced global climate change and regional air pollution.

The renewable certificates in this product are verified and certified by the Green-e Program. Each supplier of renewable certificates is required to disclose the quantity, type and geographic source of each certificate. [Company name] will annually report to you the actual resource mix of the certificates you purchased during the preceding year. Please see the Product Content Label for this information. The Green-e Program also verifies that the renewable certificates are not sold to more than once or claimed by more than one party. For information on the Green-e Program please visit their website, [www.green-e.org](http://www.green-e.org), or call them toll-free, 1-877-63-GREEN.

This language may be modified with pre-approval by CRS.